Integrated Service Delivery

Governments Using Technology to Serve the Citizen

International, Federal, State, and Local Government Experiences

"I believe in the Information Age. The role of government is to empower people with the tools to make the most of their own lives, to tear down the barriers to that objective, and to create the conditions within which we can go forward together."

— President Clinton

Table of Contents

Acknowledgments

This report is based on the discussions and recommendations of the Intergovernmental Advisory Board (IAB) of the Federation of Government Information Processing Councils. The IAB recommended a research study on government use of the Internet to provide information and services to its citizens.

The IAB consists of nine members — three members each representing federal, state, and local government. The IAB is chaired by Frank McDonough, Deputy Associate Administrator for the Office of Intergovernmental Solutions, an office in the General Services Administration 's Office of Governmentwide Policy.

Members of the IAB:

The Federal government is represented by:	State governments are represented by:	Local governments are represented by:
Michael Carleton Department of Health and Human Resources	Bradley S. Dugger State of Tennessee	F. Russell Doupnik Howard County, MD
Ronald Collison Immigration and Naturalization Service	Michael Hale State of Georgia	Donald Evans Montgomery County, MD
Allan Doris Financial Management Service U.S. Department of Treasury	Carolyn Purcell State of Texas	Winifred Lyday National Association of Counties (NACo)

Executive Summary

Governments are going on line and using the Internet and kiosks to provide public services.   Local jurisdictions and states are encouraging citizen interaction and enabling citizens to pay parking tickets, fees, and taxes; apply for licenses and permits; search for a job, renew license plates, and purchase items—all electronically. At the national level, countries are targeting certain segments of the population (e.g., seniors, students, and members of the armed services) and providing them with tailored services. At the international level, some governments are using the Internet to build connected communities.

In the spring of 1999, the Office of Intergovernmental Solutions, in cooperation with the Intergovernmental Advisory Board, conducted a survey to assess the progress of governments in delivering services to its citizens. We were interested in integrated service delivery (ISD) usually provided through the Internet. ISD is defined as providing an interface accessible to the citizens where they could obtain multiple services via a single access "window." Many Internet sites now provide information, but our goal was to identify those sites that focused on transactions and services. We also focused on governments that provide four or more on-line services, integrated and accessed through a single window.

To understand the trend in ISD, we took a snapshot of where it is today. This survey includes 18 U.S. state and local sites, 10 national sites, and 12 international sites. We also briefly identified the issues governments should consider before designing and building on-line transactional services.

We concluded that:

* the development of on-line transactional services is in its early stages;

* there are discussions and plans galore, but much remains to be done;

* early on-line government sites provided information; some are evolving and provide services;

* very few sites provided four or more transaction-based services;

* governments have traditionally focused on processes but are beginning to shift their perspective to providing citizen-centered services;

* at least a decade may pass before citizens have on-line access to ubiquitous services.

At the state and local level: Two hundred state, regional, county, city, and township websites were surveyed. There is a vast variation in how government information is presented and how services are delivered. The websites were attractively designed and many utilized innovative graphics and dynamic programs to better inform citizens and provide services.

At the U.S. federal level: Agencies and departments use a variety of approaches. Our survey shows that the U.S. Government is beginning to embrace electronic services to the citizen in practice as well as in theory; however, integrating electronic services under one interface for the citizen is still a work in progress. One emerging trend is that ISD is beginning to be targeted to specific citizen groups like seniors and students. Another trend is that there is a definite increase of electronic services on line. Though ISD is still in the development, the future looks promising.

At the international level: The national sites of nearly every country and many cities, states, and provinces around the world were reviewed. In some foreign countries, governments are restructuring processes before integrating services and providing these services online. Others have viewed the web as a community tool and utilize interactive forums to connect citizens to community organizations, businesses, and one another.   We found that technology is not the only requirement for ISD; intergovernmental cooperation and citizen access are equally important.

The results of our survey tell us that ISD is still evolving. The number of governments providing a wide variety of integrated transactional services is still small. However, an increasing number of governments are going on line, integrating services, and focusing on the citizen. This trend will continue. The international examples show us the positive effects governments can have when they utilize technology to bring government, citizens, and the community closer together.

Our work is by no means finished. This survey is a snapshot in time. The next step is to determine if the investment is paying off. Has the use of the Internet resulted in improved services? How are services being

integrated across different levels of government? Do citizens have the tools to make the most of their lives? Is government more responsive? Has technology lived up to its promise? Are governments providing services anywhere, anytime, to anyone—and at what costs and with what benefits to the citizen and the agency?

The Office of Intergovernmental Solutions in 1998 published two other related reports. The first one, *Foundations for Successful Intergovernmental Management,* finds that the story of intergovernmental program management is the story of partnerships, communications, and leadership. Partnership arrangements are significant. Success depends on participants sharing a set of common visions and values, speaking the same language, and working together under some sort of formal agreement.

The second report, *The Challenging Road to the Government of the Future: Intergovernmental Management Issues and Directions,* finds that public managers faced with managing an intergovernmental initiative must understand the potential challenges, create an environment that minimizes the risks, and have mechanisms to work through each challenge as they arise. Areas of risk include decision making, communication, the fixing of responsibility and accountability, and balancing competing objectives. These reports can be found at http://policyworks.gov/intergov.

1.

Integrated Service Delivery: An Introduction

Information technology is revolutionizing the way governments work and the ways in which they deliver services to the public. The Internet has increased public access to government services. Initially, the Internet was used to disseminate information. As technology advanced, governments began to build interactive, web-based applications designed for and delivering services to the citizen. Today, the more robust service delivery systems reflect this citizen orientation.

In the spring of 1999, the Office of Intergovernmental Solutions (OIS) conducted a survey of government websites from other countries and from sites in the United States at the federal, state, and local levels. The objective was to identify those sites that provide integrated services to the citizen. What we found is a trend that is gaining momentum but has not yet matured. In fact, we are witnessing a trend that will steadily evolve in the next decade. When it does, society will be significantly changed in the way citizens interact with their governments.

Background

Governments are evolving in their use of technology. In the 1980s, technology supported some degree of automated customer service. By 1990, governments were using kiosks in limited numbers, CD-ROM, and 1-800 numbers to serve the public. In the 1990s, governments are developing single entry points to web-based information and offering services to the public that require a high degree of intergovernmental cooperation.

When governments work for the people — when citizens receive good basic services, and have faith in the government that is providing them — when taxes are low, and government meets public needs without maddening bureaucracy — then a large measure of political and economic stability naturally follows.

—Vice President Al Gore

The Internet and electronic commerce have been key factors in moving governments from being collectors of information to implementers of "electronic government." Electronic government can be visualized on a continuum. At one end of the continuum, governments use technology to disseminate information. This use of the Internet generally represents a starting point for most agencies. As governments gain experience, they develop Internet applications to support electronic filing and on-line applications for permits and licenses. A still more sophisticated use of the Internet provides for paperless acquisitions (electronic malls), interactive electronic services to the public, and the tailoring of information to individual customers.

Web-based technology is now capable of providing services to the citizen and on the citizen's terms, bypassing the bureaucracy and red tape plaguing governments at all levels. Out of this citizen-focused view of technology arose the concept of *integrated service delivery* (ISD). In a broad sense, ISD is the convergence of government services under one interface accessible to citizens. Few websites boast that they are doing this now, but many are feeling their way down this path. Placing services on line, consolidating and reorganizing once fragmented services according to the needs of citizens, creating on-line communities where citizens can communicate with the government and each other—all of these things are happening right now.

To understand the trend in integrated service delivery, OIS has taken a snapshot of where ISD is today. We included websites that consolidate into one shared interface four or more services or social service functions that directly affect and involve citizens. We also included services offered through kiosks. Common services include:

* Completing and submitting forms on line
* Paying bills on line (parking fines, water bills, etc.)
* Looking for a job (posting resumes on line, reviewing employers' register of jobs, applying on line)
* Making appointments on line
* On-line shopping
* On-line banking
* Applying for and purchasing licenses and permits

We have analyzed 40 initiatives undertaken by federal, state, local, and international governments. We found many governments offering on-line transactional services in one centralized location. The State of Florida and Singapore are examples of

governments providing on-line service delivery.

While some governments are fine-tuning on-line service delivery to citizens, others are reorganizing to reflect the citizen's needs rather than their own bureaucratic makeup. This is true in Australia's Centrelink program and the U.S. Government's Access America initiatives for students and senior citizens.

Issues

The September 1993 National Performance Review report, *Reengineering Through Information Technology, Accompanying Report of the National Performance Review*, contains the first requirement to implement electronic government, while Vice President Gore's 1997 *Access America* report contains the initiatives to accomplish this requirement. However, implementation of electronic government has not been smooth. Privacy, security, standards, policy, and culture are all issues that have hindered implementation.

There are some conceptual issues facing governments as well. Do governments really want "one window" to government services, or do they want citizens to have choices and personalized service? Should governments make sure that all citizens have access before implementing ISD, or should they pursue ISD under the assumption that infrastructure and access will eventually catch up? Should websites and kiosks be one-stop *government* sites, or one-stop *community* sites that include services beyond those traditionally thought of as governmental, such as banking and on-line shopping? Should services be integrated at one level of government or should services be integrated by providing federal, state, and local service in one site?

In our survey, we found that the following issues should be addressed before designing and building on-line transactional services.

Privacy: The foremost concern when constructing transactional services is ensuring the privacy of the citizen requesting the service. According to a survey by *The Industry Standard* (May 24, 1999)[1] 34% of all on-line users agree with the statement that "[t]he Internet is a serious threat to privacy." It is important to clearly post privacy notices that inform citizens how the information will be used. Forms must be designed with reference to relevant privacy statutes and open records law, so that they do not ask for protected information. Data collected must be handled in a secure manner, with consideration given to the combined effect of different forms, which can easily create a privacy-infringing profile of an individual in the aggregate. Basically, an on-line form should have a clear and specific purpose and be directed to specifically authorized entities. Governments must consider the appropriate balance between privacy of personal information and the right of individuals to access public records.

Authentication: Balanced against privacy is the need for authentication. According to *E-Commerce Times* (May 27, 1999)[2], some web merchants claim that over half their on-line sales are based on the fraudulent use of credit cards. Finding secure ways of verifying the identity of citizens requesting services is a major concern when building transactional services. Another concern is the use of digital signatures for verifying identification that is as legally binding as a real signature. Although digital signatures are quite secure, the infrastructure needed to support them can be expensive and requires constant maintenance.

Data Exchange: A major design issue for integrated service delivery sites is how to capture data from a web-based form and transfer it to an agency's systems for processing. Related to this issue is the issue of how to share that information with other agencies in a common format. An example of this is the NASIRE project[3] to study "information architectures" that will allow states to share information needed for their justice programs. Finding a common standard for sharing data is an important step in truly integrating on-line transactional services.

---

[1]. http://www.thestandard.net/metrics/display/o,1283,897,00.html?home.metf)

[2] http://www.ecommercetimes.com/news/viewpoint/view-990521.shtml

[3] http://www.nasire.org/hotIssues/justice/PR%2003-1- 9-99.doc

Public Access: Another major design issue is how to provide access to citizens who have limited access to the Internet. These include citizens who live in remote areas and the inner city, citizens with no computer knowledge, and the disabled. An important policy consideration governments face is how to provide services and access to this segment of the population and how to make the information provided on line available in other formats for those citizens that don't have ready access to a computer.

Security: There are a number of other concerns when designing integrated service sites. A site may have a solid privacy statement and well-designed forms but, if the server breaks down, privacy can be quickly compromised. The increasing sophistication of hackers also poses a threat, as the number of break-ins to government sites such as the Justice Department and the Pentagon have shown.[4]

Promotion: The rationale for integrating on-line transactional services is to ensure that citizens can find the services they need easily and quickly. Navigation must be easy and self-explanatory. Some good models are Florida's Government Services Direct[5] and the United State's Access America for Seniors[6].

Some guidelines when promoting services:

* Use action-oriented, common terms for services such as "registering to vote" or "reporting an illegal waste dump."

* Try to cluster a set of services into a common theme, for example, "life events."

* Provide numerous navigation aids to the services.

---

[4] For an archive of hacked websites: hKp://www.2600.com/hacked_pages/ [warning-offensive content]

[5] http://fcn.state.fl.us/gsd/

[6] http://www.seniors.gov/

2.

ISD in the United States -- State and Local Governments

State and local governments are often called the "laboratories of democracy" because this is where most innovation in public service comes from. In surveying over two hundred state, regional, county, city, and township websites, we found vast variation in how government information is presented and in the delivery of public services.

The websites were attractively designed and many utilized innovative graphics and dynamic programs. Government websites were equal to some of the better commercial websites such as Amazon.com or CNN.com. In all the state and local websites surveyed, not one site failed to fully utilize the web for delivering government information to their citizens.

In providing on-line transactional services, close to half of the sites surveyed provided at least one type of on-line service. Here again, the innovation and variety was astounding. Along with providing the typical form-based transactions such as registering a vehicle or filing state taxes on-line, state and local websites offered truly unique services. Alaska offers "just-in-time" technical training to the desktops of their state employees; West Virginia has an auction site where recyclable material can be bought and sold; and the City of Indianapolis has E-Gov, an on-line forum to enable citizens to talk directly to city officials. Along with the use of innovative technology, sites such as Florida's Government Services Direct applies sophisticated design techniques to deliver services to the citizen in an efficient and even entertaining fashion.

The technology behind on-line transactional services is in its early stages. As the technology matures and becomes more secure and robust, we are anxious to see how the state and local governments will use the new technologies. As the featured state and local websites demonstrate, citizens can expect better and more personalized services from these "laboratories of electronic democracy."

Below are the sites included in this section that offer on-line transactional services:

Alaska's WebMart

The Information Network of Arkansas

Government Services Direct (Florida)

Access Indiana Information Network

The Information Network of Kansas

KyDirect (Kentucky)

"Get things done" (on-line services, Massachusetts)

Nebraska@ Online

Get It Done in South Dakota

@ccess Washington (Washington State)

West Virginia Online Services

Transactions (City of Boston)

Electronic Village (College Station, Texas)

IndyGov - eGov (City of Indianapolis)

City of San Diego

Seattle Public Access Network

Clark County, Nevada Government and Services

COG (Metropolitan Washington Council of Governments)

Alaska's Webmart offers a convenient way for citizens to find the on-line service they need.

Alaska, United States

http://www.state.ak.us/local/webmart.html

A valuable service is the on-line IT training for state employees and university students. Using this service, state employees and students can register for IT classes that are delivered right to their desktop. This innovative use of distance learning can provide the "just-in-time" technical training an employee or student needs.

A list of some of the interactive services offered:

  * Personalized license plate

  * Driver's license registration renewal

  * On-line information technology training for state employees and university students

  * Workplace Alaska — on-line application for jobs

  * Business license (new or renewal)

The Information Network of Arkansas provides fee-based on-line services along with free on-line services.

Arkansas, United States

http://www.state.ar.us/

An interesting fee-based on-line service is the "Lobbyist-in-a-Box" that is a personalized bill-tracking system. Users enter their profile and the legislative subjects they wish to track. The service then alerts the user (through e-mail or pager) when there is legislation concerning the selected subject. The user can also create customized reports on a daily, weekly, or monthly basis based on legislative activity.

A list of some of the interactive services offered:

  * Driver's records (fee)

  * Lobbyist-in-a-box (fee)

  * Board of nursing registry (fee)

  * Workers compensation commission (fee)

  * Secretary of state (no fee)

  * License tag renewal (no fee)

The Florida website can be considered the model for integrated service delivery.

Florida, United States

http://fcn.state.fl.us/gsd/

This site has a very polished look and easy-to-navigate categories of services. Its use of the theme "Direct" (as in "Leasing Direct" and "Purchasing Direct") is an innovative way of tying on-line transactions together by functional areas. The home page, "Government Services Direct," is divided into four information areas that make finding a particular service very easy. The first section is "What's New," which features one site. Then, there is the "Showcase Applications" section, the "Government Network" (for state employees), and the "Citizen's Network" (for the general public).
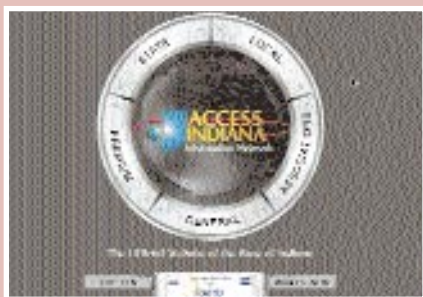
A list of some of the interactive services offered:

  * Job search
  * On-line job application
  * Government workers training registration
  * Phone directory search
  * Leasing direct
  * Purchasing direct
  * Business and professional license search
  * Government surplus property classified ads
  * Consumer complaint form
  * Motor vehicle repair complaint form
  * Telephone solicitation complaint form
  * Workers compensation compliance database
  * On-line utility complaint form

Indiana integrates the vertical state agencies into a horizontal model to help citizens access services that cross government boundaries.

Indiana, United States

http://www.state.in.us/

The Access Indiana Information Network (AIIN) is the model for integrating all of a state's agencies and government information into one easy-to-use site. This is an example of ISD where the state government integrates the vertical state agencies (and in this case, local government) into a horizontal model so that citizens can access services that cross government boundaries. What is unique about the AIIN is that it is solely supported by its user fees without any state or federal funding. By charging for only 10% of its services, AIIN is able to provide numerous free services to the Indiana citizen.

Some of the interactive services offered are:

* Drivers' records (fee)

* Vehicle titles and liens (fee)

* Health professional's licenses (fee)

* Licensed child care providers database

* College grant and scholarship information

* Department of Natural Resources water quality databases

* Sex offender registry

* License plate renewal

Kansas, United States

http://www.state.ks.us/

Kansas offers the **"Information Network of Kansas"**—a fee-based set of on-line services that allow a user to query on-line databases. Kansas, like Arkansas, also offers "Lobbyist-in-a-Box" for legislative bill tracking. INK was established in 1990 by the Kansas legislature as a public-private partnership that uses the subscriber fees to pay for its operation and maintenance.

Some of the services offered are:

* UCC searches

* Motor vehicle records

* Property valuation data

* Lobbyist-in-a-box

* District court records

* Kansas Administrative Regulations

* Board of Nursing

On-line services are provided hrough a public-private partnership.

Citizens are offered choices of on-line forms and databases, and places to shop.

Kentucky, United States

http://www.kydirect.net/

Kentucky just recently re-launched its on-line services website as "KyDirect." KyDirect is divided into two major sections. One section, "KyDirect Services," provides on-line forms and databases while, "KyDirect Market" offers products and services that can be purchased on-line with a credit card. A unique on-line service allows a user to report an illegal dump site on an interactive map that can zoom in on a specific location in a county.

Some of the services offered are:

   * Business search database

   * UCC search

   * Corporate name availability

   * Search Revolutionary War warrants

   * Report an illegal dump site

   * Unclaimed property search

   * UK vital records search

   * Buy hunting and fishing licenses on line

Geospatial information, maps, and data can be ordered on line.

Massachusetts, United States

http://www.state.ma.us/

Massachusetts titles its on-line section as **"Get Things Done,"** which is a good description of the broad range of transactional services it offers on its website. From this section, a citizen can search databases, file a complaint, pay a fine, request information, and download forms. Its also one of the few government websites where GIS data can be ordered on-line.

Some of the services offered are:

   * Renew driver's registration

   * Request a duplicate registration

   * Order a special license plate

   * Pay a citation

   * Division of Insurance customer complaint form

   * Investor complaint form

   * Employers post jobs on Mass. Job bank

   * On-line resume and cover letter creator

   * Order form for maps and digital GIS data

   * Mass. Dept. of Telecommunications and Energy consumer complaint form

Nebraska provides fee-based services through Nebraska@On-line.

Nebraska, United States

http://www.state.ne.us/

Like those of Kansas and Arkansas, **Nebraska's services allow** a subscriber to search various on-line databases. A number of fee-based on-line services are offered, including gateway to the Internet, interactive motor vehicle records, interactive title registration and lien records, Nebraska statutes, and electronic mail. Bulletin Board Networks are maintained by professional associations for their members (such as insurance agents, attorneys, bankers, counties, cities, and others).

Some of the services offered are:

  * Uniform Commercial Code (UCC) records and UCC searches by finance statement number or by name and/or city

  * Corporate and business entity records

  * Driver's license records

  * Vehicle registration records

South Dakota's site is a model on how to organize on-line services.

South Dakota, United States

http://www.state.sd.us/

On-line services are intuitive and citizen-oriented. "Get It Done in South Dakota" offers both a topical listing of on-line services and a search engine for finding the on-line service a citizen needs. The services are described in everyday task-oriented terms rather than in the passive agency-designated manner of other on-line services. South Dakota also packages a group of services in a useful and efficient way—for example the "Start Any Business" service. This service provides checklists and forms to help a citizen choose a business structure, figure taxes, and develop a marketing plan. Get It Done in South Dakota is an excellent model on how to package services into a user-friendly manner.

Some of the services offered are:

  * Find a job

  * Become a Highway Patrol Trooper

  * Turn in poachers

  * Start any business

  * Get help insulating, weather stripping, caulking or installing windows in a house

he @ccess washington dynamic menus help citizens navigate to the n-line services they need.

Washington, United States

http://access.wa.gov/

This is an attractive and well-designed site. A user clicking on the "Business" menu item launches a window that details the various services available from the State of Washington. And, like other states, Washington bundles certain services that have a common theme, such as starting a business.

A unique offering is a personalized Y2K profile that allows users to create their own reports for determining just how ready their local community is for the Y2K date conversion.

A list of services offered:

* Your personalized Y2K profile

* Unclaimed property search

* Washington State Training and Registry System (STARS) that provides training for child-care providers

* License Information Management System

* On-line job search and application

West Virginia makes innovative use f ISD for tackling the recycling of materials.

West Virginia, United States

http://www.state.wv.us

A good site that can be made better by featuring its on-line services more prominently on its home page. This attractive and well-designed home page features a "State Web Page of the Month" and organizes its on-line services in intuitive, functional categories. A unique on-line transaction site is the Solid Waste Management Branch Exchange Board, which is an on-line auction site for the recycling of materials. A very innovative use of ISD.

A list of some of the interactive services offered:

* Search state jobs

* E-mail for state map

* Electronic Bid Submission Program

* Unclaimed property search inquiry form

* Solid Waste Management Branch Exchange Board

* State taxes on-line filing

* Address opt-out form

City of Boston On-line provides a number of services and is introducing more.

Boston, Massachusetts, United States

http://www.ci.boston.ma.us/transactions/

The City of Boston has grouped all of its on-line services under its "Transactions" page. An excellent feature is the "Mayor's 24-Hour Services," which allows citizens to go on line and report such problems as having no heat in their home or requesting snowplowing services directly to City Hall. The "Serving Our Citizens" section connects to over fifty departments and agencies—including Basic City Services, which has been called the "nuts and bolts" of the city. The website also encourages citizens to suggest new transactions to the web team.

Some services offered:

   * Assessing information

   * Mayor's 24-hour Services

   * Job postings

   * Pay a parking ticket

The "Electronic Village" serves as a portal to community businesses and organizations.

College Station, Texas, United States

http://www.cstx.gov/

City services are just one part of the City of College Station's site. In addition to offering several on-line services, College Station also has the "Electronic Village," which serves as a portal to community businesses and organizations. This site is a combination government portal and tourism guide.

Some of the services offered:

   * Citizen Committee application form

   * Interactive community calendar

   * Drainage service request

   * Public Works contact form

   * Electronic Village

he IndyGov site features
ectronic government.

Indianapolis, Indiana, United States

http://www.indygov.org/

The City of Indianapolis believes in the concept of e-government, and it shows on this site. Along with on-line transactional forms, this site also offers several on-line forums whereby citizens can chat with city officials about their concerns and have their questions answered almost immediately. Demonstrates the power of ISD in creating a dialogue between government and its citizens.

Some of the services offered:

* Find elected officials

* Permit submittal

* Home buyers search

* Pay a parking ticket

* Volunteer services match

* Report civic action

* Report street repairs

* Report pollution complaints

n-line services are easy to find
n San Diego.

San Diego, California, United States

http://www.sannet.gov/

Good design, especially the use of labeled tags, makes it easy to find the on-line services. The page has five major sections: Mayor and Elected Officials; City Organization; Business Centers; City Services; and Regional Links. Some on-line forms can be accessed under "City Services" but the on-line forms are also grouped under "Forms" on the navigation bar. A useful service is the "Citizen's Assistance Resources" which is a searchable topic directory. Using this directory a citizen can find the office that handles abandoned buildings or where to get CPR training.

Some services offered:

* Citizen's assistance resources

* Employment opportunities

* Zoning information request

* Street service request

* Citizen request form for police patrol

eattle's site offers interactive mapping applications.

ite provides information and ervices.

Seattle, Washington, United States

http://www.ci.seattle.wa.us/

Seattle Public Access Network groups services for three different audiences: citizen, visitor, and business. This approach allows users to find the services they need quickly. Like a few other states, Seattle offers interactive mapping applications that allow a citizen to learn who the property owner is or find out tax information on that property.

Some of the services offered:

   * Cable TV complaint form

   * Pay parking ticket/court fine

   * Report potholes

   * Report streetlight outage

   * Create a city map (GIS application)

   * Community resources on line

   * Search the City Clerk's office

Clark County, Nevada, United States

http://www.co.clark.nv.us/

Clark County, Nevada, offers some basic on-line services through its attractively designed site. There are twelve categories that providing services and links, organized by subject matter. "Traffic & Transportation," for example, provides information on road work, transportation initiatives, and Clark County's airports. "Neighborhoods & Housing" takes you to Planning Commission agendas, information on graffiti abatement, and building code information. A useful feature is the "Citizen Connector," which is an interactive GIS application where citizens can find basic information about their local communities within the county.

A list of services offered:

   * On-line job interest card

   * District Court case and calendar searches

   * Business license search

   * Official records search

OG, a regional organization of 7 Washington, D.C. area local overnments, provides on-line ervices and information.

Metropolitan Washington Council of Governments, United States

http://www.mwcog.org/

Pulling together the resources of its member governments, the Metropolitan Washington Council of Governments offers several unique on-line services. One example is the "Cooperative Purchasing" service, which allows area governments to make combined purchases, thus saving money by allowing for deeper discounts on larger purchases.

Some of the services offered:

  * Locating a child care provider

  * Cooperative purchasing

  * Commuting information

  * Conference registration

3.

ISD in the United States -- Federal Level

In our survey of federal sites we found the same to be true for the United States Government as for most governments—integrated service delivery has yet to mature. As we scan the Federal Government for examples of integrated service delivery, we see agencies and departments utilizing many different approaches. Our survey shows that the U.S. Government is beginning to embrace electronic services in practice as well as in theory, but integrating electronic services to one interface for the citizen is a work in progress.

There is no one "right" approach to integrating services or providing electronic services. In our survey, we found differing approaches. Some services are being integrated and targeted to a specific group of citizens: seniors, students, members of the armed forces. Other services are integrated based on what a citizen does: pays taxes, plans a vacation, finds a place to live. Below are the sites included in this section:

* **AAFES (Army and Air Force Exchange Service)**
* **Access America for Seniors**
* **Access America for Students**
* **FCC Electronic Filing System**
* **HUD's Homes and Communities Page**
* **Internal Revenue Service e-file and Electronic Payment Options**
* **Lifelines (U.S. Navy)**
* **NSF Fastlane**
* **ReserveUSA**

* White House Services Section

One trend in integrating service delivery is targeted sites to specific citizen groups. The Access America sites for seniors and students, and the sites serving the armed forces, AAFES and Lifelines, are designed to serve a particular group of citizens or customers. The sites often contain information of particular relevance to the targeted group, as well as electronic services available on line. At this moment, the sites collect and catalogue services offered by separate departments and agencies that meet the needs of the target group. For example, the Seniors.gov site links visitors to Social Security on-line services and Veterans Administration services. But integration is only at the front end and has not worked its way throughout organizations within the Federal Government.

Another trend is the increase of electronic services on line. Our research initially focused on sites integrating four or more electronic, or transactional, services from traditionally separate organizations. However, we often found agencies that provided electronic services but were not integrated. Other times we found examples of different agencies coming together—integrating— but not offering their services in a transactional environment. Therefore, in this document we decided to recognize examples of individual agencies that offer a number of their services electronically.

The Lifelines and AAFES sites for the armed services are excellent examples of how transactional services can be used to serve citizens. The IRS e-file and e-payment sites offer citizens the opportunity to pay their taxes on line and receive payment electronically, providing better service and accuracy. HUD bridges the gap to citizens by providing valuable information and many transactional features on line. The National Recreation Reservation Service's ReserveUSA offers its reservation services for National Parks campgrounds on line. Currently, many of the transactional services offered by agencies are not directly related to their primary benefits. IRS and ReserveUSA are exceptions; their key services and benefits are available on line. Agencies such as the National Science Foundation and the Federal Communications Commission have used the Internet to speed up their internal processes and cut down on paper.

Though integrated service delivery is still in the developmental stage, the future looks promising. There is an active effort by the government to provide services to citizens on line. Agencies are starting to realize the necessity of providing services according to the needs of the customer and not the process and structure of government. With emphasis on citizens and electronic services, the full potential of integrated service delivery may be within our grasp.

oldiers shop on line using
AFES.

Army and Air Force Exchange Service (AAFES)

http://www.aafes.com

AAFES Home Page is an example of how one interface, in this case a website, can serve a widely dispersed customer population. The mission of AAFES is to provide quality merchandise to soldiers, airmen, and their families. Exchanges are located throughout the world. Authorized customers are Army and Air Force personnel.

With a site that emulates many private sector sites, AAFES integrates its many services and products here. Shopping can be done on line, with available items ranging from clothing to personal computers. Log-in passwords are used for secure access. Customers can check their credit statements on line and make contributions to the Army and Air Force Morale, Welfare and Recreation organization, as well as search for the nearest exchange. By providing services and merchandise on line, AAFES brings a customer base that spans the globe to one place, fulfilling the very definition of integrated service delivery.

Interactive services available through this site:

* Purchase merchandise through a secure connection
* Contribute money to the Army and Air Force Morale, Welfare and Recreation Organization.
* Search for nearest Exchange location
* Credit statement checks
* Interactive log-in for security and access

ccess America tailors electronic
livery of services to seniors.

Access America for Seniors

http://www.seniors.gov

This Access America site is designed to be an entry portal for senior citizens to reach government services and information. Information on benefits, health and nutrition, and consumer protection are among the services provided. Electronic (on-line) services are clearly highlighted for visitors to the site. The vision of Access America is to provide as many electronic services as possible to all citizens. While the site acknowledges that the trend of providing transactional services is just beginning, they have still compiled a window to electronic services available now. The services are maintained by separate organizations, but are integrated in this one site to serve a specific citizen group: senior citizens.

There are numerous services integrated into this one site. Social Security Administration offers a variety of electronic services: an on-line request form for an estimate of personal earnings and social security benefits, a forum where senior citizens can calculate their own estimates for social security benefits, a request for an official letter verifying social security benefits to a third party, and

on-line requests to replace Form 1099, used for income tax calculation. A multitude of other on-line services is provided on this site. The site connects to IRS e-file and e-payment services, so seniors can file returns on-line. Also, stamps can be bought on line and delivered to the door. All of these transactional services are available along with searchable databases regarding pensions, nursing homes, Medicare's health plan options, plus many other services.

This integrated site illustrates the trend in governments of tailoring services to citizen groups. The on-line services are collections of electronic services relevant to seniors, maintained by specific departments and agencies. Access America's senior site and student site, which we will discuss later, are ushering in the movement towards citizen-driven integrated sites.

Services available on line from Access America for Seniors are:

* Social Security Administration's request form for an estimate of personal earnings and social security benefits

* Calculation of social security benefits estimates

* Requests for an official letter verifying social security benefits to a third party

* Requests to replace Social Security Form 1099, used for income tax calculation

* Connection to IRS e-file and e-payment services

* Purchases of stamps

Access America for Students

http://www.students.gov/index.html

On the heels of the Seniors.gov site, the Access America initiative has created a site tailored to the specific needs of students. The site currently acts as a gateway to information of interest to students, with links to some on-line transactional resources such as applications for Federal Financial aid, a calculator (to compute monthly loan repayments), a form to consolidate loan repayments, selective service applications, and links to IRS e-filing service.

But far more ambitious than the on-line services currently provided are the *Electronic IDs* and *Student Aid Accounts* to be administered on the site. Spearheaded by the Department of Education, Student Accounts will act as the one interface point for students to access all loan and financial aid transactions on line. The site will utilize new *Public Key Infrastructure* (PKI) to provide a digital signature, enabling a student to sign legal documents on line and use an assigned *Education PIN (ePIN)* to access account information and register locally through campuses or on-line. Once a secure environment is created using PKI, student accounts will bypass much of the procedural red tape involved in financial aid.

Development of the site is a partnership between the Department of Education, Veteran Affairs (VA) and the Department of Labor. VA is developing WAVE, allowing students to verify enrollment information on line in order to receive

Students receive benefits and services on line.

benefits more quickly. The Department of Labor is making on-line job searching, resume building, and their America's Job Bank available to the Access America for Students site to help students find a job. The Access America for Students initiative has selected 10 pilot schools to implement the Student Accounts. The site has been available since May 1, 1999, and the *Student Accounts* will begin July 1999. The *Electronic IDs* will be assigned in December of 1999. In the next phase, more services will be provided under the *Student Accounts* and more schools will participate.

Transactional Services available:

* Links to Federal Financial Aid applications

* Calculator to compute monthly loan repayments

* Form to consolidate loan repayments

* Selective Service applications

* IRS E-file and E-payment services

* Electronic IDs

* Student Aid Account

* America Job Bank services, on-line job search, and resume building

* VA's WAVE system for verification of enrollment information

CC conducts its business over the ternet.

FCC Electronic Filing System

http://www.fcc.gov/e-file/

The FCC offers several web-enabled systems that provide interactive features and a searchable database available to the public to speed filing processes. This site is a great example of how to conduct a federal agency's business on line and make information accessible. Transactional services are also offered; for example, Local Exchange Carriers submit their tariffs electronically to the FCC, through the *Electronic Tariff Filing System (ETFS)*.

This site allows communication companies and broadcasters to submit comment applications and tariffs on line. The general public can view these activities as well. Below is a list of the e-file services available. The purposes of this site are specifically geared toward the need of communications industries and those that deal with the FCC.

Interactive services include:

* Electronic Comment Filing System

* International Bureau Electronic Filing System—electronic filing of application

* Electronic Tariff Filing System

* Amateur radio call-sign application

* OET equipment authorization application

* Electronic filing of forms with the FCC

* Antenna structure registration

* License renewal for radio stations

* Universal Licensing System for wireless service

Housing and Urban Development

http:// www.hud.gov

The HUD site focuses entirely on the citizens it serves—so much so that the title of the HUD home page is simply "Homes and Communities," rather than the department's name. Along with a nicely designed site and a wealth of information, there are many on-line interactive services available. Topics are organized by citizen needs, such as *own a home, complaints,* and *rental help.* As an information resource, the site is wonderful—consistently updating its information, providing current news, and even Web-casting important events.

HUD initiatives are highlighted on line, and information sections are geared toward specific citizen groups, like children, the elderly, and the handicapped. The transactional services are not necessarily highlighted but, rather, are woven into the fabric of the website. HUD is an excellent example of how to exploit the web to better serve citizens.

Electronic services available:

* Bidding for Federal Housing Sales

* Complaint form to file against a lessor

* Open discussion forums about relevant topics

* HUDCLIPS forms library

HUD serves homes and communities on line.

RS goes electronic with e-filing
nd other services.

avy creates a multimedia
ansactional mall for military
ersonnel.

Internal Revenue Service

http://www.irs.ustreas.gov/prod/elec_svs/index.html

The IRS has utilized the Internet to cut a months-long, paper-littered process down to a paperless one by utilizing the web. The site, www.irs.ustreas.gov/prod/elec_svs/index.html, offers e-file and e-payment services to taxpayers. The arduous process of filling out long forms, sending them in with a payment, or waiting patiently for a tax refund has been replaced with electronic services that are quicker and more reliable. Citizens and businesses can file their returns over the Internet, and within two days citizens are notified of acceptance. If a refund is due, it can be deposited electronically into the citizen's account, completely bypassing any paper transactions. Beginning in 1999, if any taxes were owed, citizens could submit payment on line using a credit or debit card.

Not only is it quicker to file taxes and receive or send payment electronically, but it is also more efficient and accurate. Paper returns saw a 20% error rate while e-filing had only a 1% error rate. The IRS is an excellent example of government taking advantage of electronic service delivery.

Transactions offered through e-file and e-pay:

  * File tax forms on line

  * Electronic deposit of refund

  * Pay owed taxes over the Internet

  * Tax calculators to compute tax forms

Lifelines

http://www.lifelines4qol.org/

The armed forces are in many ways leading the way in integrated service delivery, as shown by AAFES and Lifelines. The Navy developed *Lifelines* to reach the entire military population. Because military personnel are stationed worlwide, the Internet is an excellent way to reach all of them with the same level of service. The Lifeline mall has potential to be one of the best examples of transactional service delivery around. In the future, the site will allow military personnel to order from electronic catalogues. Links to the on-line transitional services provided by AAFES are also available.

The graphic presentation of services is amazing, allowing citizens to wander through a virtual mall. The mall has 4 wings: *Community and Family Support, Special Support, Leisure Pursuits, and Food Shelter, Jobs and Other Basics.* Each wing has storefronts that military personnel can click on to reach services. For example, in the Leisure wing there is a newsstand, a sports store, an audio video store, travel store, a virtual library and an electronic schoolhouse. Soon to be available are housing and financial services as well as career development and

consultation. Much of the site is under construction, with only a handful of on-line transactional services so far. Once its vision is fully realized, military personnel around the world will need only one site for information and on-line transactions.

Transactional services include:

 * Links to AAFES electronic services

 * Electronic catalogues

 * On-line pharmacy

 * Virtual flowers and cards

 * On-line newsstand

 * Feedback Forum for service members and their families

 * On-line shopping.

NSF Fastlane

https://www.fastlane.nsf.gov/

The National Science Foundation (NSF) implemented the FastLane program to conduct business and exchange information on line, internally and with its clients. The NSF serves a community of researchers, educators, reviewers, and scientists.

The FastLane site offers three main categories of on-line, transactional features: *e-business, Applications and Functions* for grant applicants and sponsoring organizations, and *Business Office Functions.* All of the aforementioned features are available only to NSF registered institutions. To utilize the site, the person or organization needs a log-in account and a PIN number. Much of NSF's business can be conducted on line through the FastLane website. FastLane is perhaps the most advanced example of electronic, transactional service within the U.S. Federal Government. We felt this site, though not exactly an example of "integrated" service delivery, still meets the criteria of this document by offering a multitude of transactional services on line.

Features available on the FastLane site:

 * Submit comments and ratings on proposals to the NSF

 * panelists' reviews

 * travel vouchers

 * Nominations and letters of support for the Medal of Science

 * Apply for NSF Graduate and Post Doctorate Research Fellowships

 * Apply for grants

National Science Foundation does its business on line.

* Check the status of grant applications

* Check the status of funding

* Sponsoring Research Offices can assign PIN numbers and submit applications, requests, and proposals

* Cash requests against grant wards

RESERVE USA

http://www.reserveusa.com/

Nature lovers can rejoice—ReserveUSA is an example of technology bringing people closer to nature. The National Recreation and Registration Service(tm) (NRRS(tm)) provides reservation services on line at National Forest sites managed by the USDA Forest Service and the U.S. Army Corps of Engineers.

NRRS(tm) handles reservations for nearly 50,000 camping facilities at nearly 2,000 locations. Using the on-line services, citizens can find available campsites, cabins, day-use facilities, or nature adventures, and reserve them on line.   Security is maintained, in part, through password restricted log-in. Customers can fill out a profile, after which they receive a password. Once a customer has his or her password, reservations can be made on line and paid for with a credit card.

NRRS(tm) designed the website to allow citizens to find and reserve a campsite facility anywhere in the United States from any one point. By bringing these services on line, NRRS(tm) shows us how services can be improved by providing them electronically.

A list of service available:

  * Find / reserve camping sites

  * Find / reserve wilderness adventure

  * Find / reserve cabins

  * Find / reserve day use.

he great outdoors comes to the ublic.
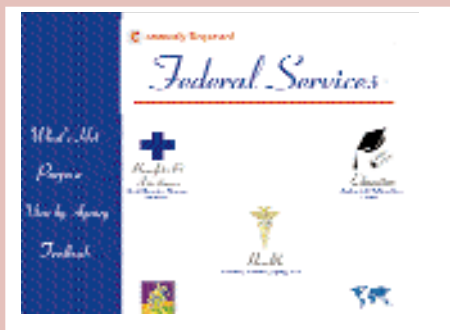
White House web-site offers access o commonly requested federal ervices.

White House Services Site

http://www.whitehouse.gov/wh/services

The Services section of the White House website compiles some of the more frequently requested federal services, bringing together separate federal programs and electronic services in one place. The Federal Services are organized as follows: *Benefits and Assistance, Education, Health, Travel and Tourism, Science and Technology, Consumer Protection, Employment and Taxes, Government Property, Publications and Mail, Housing, the U.S Business Advisor,* and *the U.S. State and Local Gateway.*

Along with invaluable information resources such as the State-Local Gateway and The U.S Business Advisor, links to transactional and electronic services offered by federal agencies are also available. This site is an excellent starting point to find government services and information on the web.

A list of the services offered:

  * SSA earning and benefits request form

  * Interactive searches to see if the Pension Benefit Guaranty Corporation maintains your pension

  * Application for financial aid

  * Application for research and education grants from the National Science Foundation

  * Reporting of product-related injuries to the Consumer Protection Board

  * Tax services

4. ISD at the International Level

In our research we looked at the national sites of nearly every country and many cities, states, and provinces around the world. We found some trailblazers in service delivery and some different approaches to integrating services.

The Singapore e-Citizen Centre site and the Victoria, Australia maxi site could be called the leaders in integrated service delivery. In some foreign countries, governments are taking an organizational approach to integration for the moment, rather than concentrating on offering transactional services. Others have viewed the web as a community tool and utilize interactive forums to connect citizens to community organizations, business, and one another. Not many sites met our criteria of integrated service delivery fully, but these sites do offer a glimpse into the potential of integrated services to the public. The list of ISD sites and initiatives included in this section are:

* **Australia—Centrelink**
* **Berlin, Germany— Berlin.de**
* **Bremen, Germany— Bremen On-line**
* **Helsinki, Finland—Virtual Helsinki**
* **Netherlands—Public Counter**
* **Ontario, Canada— ServiceOntario**
* **Portugal—Infocid**
* **Singapore—e-Citizen Centre**
* **Tyrol, Italy—South Tyrol Citizen Network**
* **Victoria, Australia—maxi**
* **Victoria, British Columbia, Canada— City of Victoria Home Page**
* **Vienna, Austria—wienon-line**

Singapore's e-Citizen and Victoria's maxi sites epitomize integrated services to the public. Services as varied as water bill payment and birth certificates can be ordered on-line. Here is a list of some the on-line government services available:

* Apply for permits
* Change addresses
* Pay parking fines
* Pay utilities
* Make appointments with government officials
* Obtain applications and forms

The Singapore and maxi sites have put all of their services in one place, so citizens do not have to contend with bureaucracy and process. All of the buzzwords—self-service government, integration, electronic government, etc.—meet reality in these two sites.

Other countries are taking different approaches to integration. Some would say that providing transactional services before everyone has access and the government has restructured to accommodate integration is premature. Centrelink of Australia, the Public Counter in the Netherlands, and Infocid of Portugal are examples of countries dealing with issues of access and organization before offering transactional services. Infocid presents services horizontally through kiosk and the Internet. Portugal has emphasized equal access in service delivery. The Netherlands is reengineering services to meet the needs of citizens. By consolidating related services, governments lessen the burden on citizens to know the process.

For government to organize around citizen needs as the Public Counter strives to do, intergovernmental cooperation is needed. One of the most ambitious examples of government reorganization is the Centrelink initiative in Australia. Centrelink brings social services from five different government departments "under one roof." In this case, intergovernmental cooperation, is an important requirement in providing integrated service delivery.

Some foreign sites integrate the community. For example, Berlin.de connects the financial and business sectors to the citizens. Citizens open on-line bank accounts through the city bank, while businesses open on-line accounts to receive payment for the products they sell. Berlin has integrated these sectors of the community, along with government and community information, into one website. Other foreign sites host citizen forums where citizens discuss local issues.

Integrated service delivery is still evolving. The number of governments providing a wide variety of transactional services is still small. But these international examples show us the positive effects governments can have when they utilize technology to bring government, citizens, and the community closer together.

Centrelink integrates once separate social services.

Australia

http://www.centrelink.gov.au

Each ISD program takes a different approach. While some consolidate a myriad of services on-line to mask the organizational structure behind, others are integrating the organization first. Australia's Centrelink program operates under the latter model. Centrelink integrates social security, employment, and education services into one point of contact for customers. Centerlink services are categorized by citizen groups rather than by bureaucratic organization. Families, students, the elderly, the disabled, farmers, and job seekers can all come to one office to receive their services. In contrast to the Public Counter program in the Netherlands, Centrelink plans to remove counters, replacing them with open-access customer bays so citizens can receive personalized service.

While technology may overcome some bureaucratic barriers, the separate organizations within the government do not necessarily work together on other ISD initiatives. To maximize benefit to the citizen, the integrated delivery of services must run throughout the system and not operate as a facade to cover disparate organizations. This reorganization is arguably the most difficult part of integration, because it is the stovepipes within government that are the root causes of fragmented services. Placing these government services and functions under one roof is no easy task.

The site offers in-depth information about every service. No transactional services are available through the site, but citizens can subscribe to a mailing list to be notified of site updates or request for Centrelink to reply to a specific question. One of the obvious concerns of integrating service delivery on an organizational level is to maintain a high enough level of specialization to help citizens with very specific issues, while holding a general knowledge of a wide array of services. There are approximately 400 Centrelink offices in Australia, all of which offer varied services, such as pensions, student loans, and job-finding services. It is ambitious to bring together a large number of historically separated services, and Centrelink is the trailblazer in agency integration. Centrelink's goal is not just to provide "one face", but a whole body to the citizen.

Customer services from the following government organizations are being integrated through Centrelink:

* Department of Family and Community Services

* Department of Education, Training and Youth Affairs

* Department of Health and Family Services

* Department of Primary Industries and Energy

* Department of Transport and Regional Services

rlin.de brings together a virtual mmunity.

Berlin, Germany

http://www.berlin.de

Berlin.de creates a virtual community on line. Some have said that the Internet has shrunk the world, bringing people in far-off places as close as the person next door, undercutting the notion of "community." But the Berlin.de web site is a good example of how the Internet can actually bring a city closer by creating a virtual neighborhood.   Berlin.de calls itself an "interactive capital." The website creates a government center as well as a community center.

The site is a cooperative effort between Primus On-line, Berlin-Brandenburg, and the Berlin Senate. Citizens can register as virtual citizens, get e-mail, and receive web page hosting services. Discussion forums are available for citizens. The Berliner Volksbank provides access to on-line accounts through the berlin.de website along with on-line shopping accounts so citizens can purchase items through berlin.de. Firms are invited to open a virtual branch in berlin.de with links to the firm's site or services and the opportunity to sell through berlin.de.

Just about any information, from government services to tourist maps, is on this site. Berlin.de is an excellent example of how a website can be a community resource, bringing together citizens, local organizations, government, and businesses.

The Berlin website offers the following services:

  * Register as a resident of the interactive capital

  * Access to banking from the Berliner Volksbank

  * On-line shopping

  * Business registration for companies to open a "branch" in Berlin.de to sell on line

  * Database of the handicapped accommodations offered by local businesses

remen envisions integrated rvices for an on-line ommunity.

Bremen, Germany

http://www.bremen.de

Bremen, Germany, is in the beginning stages of developing an integrated package of services for the community. Bremen takes a three-pronged approach to implementing ISD: one, citizen access to technology through the Internet and Kiosks; two, on-line platforms; and three, applications offering public and private services. Bremen.de is developing 12 applications to serve citizens, professionals, and business users. These applications will consolidate the services of 28 different service providers from public administration, public companies, and national service providers such as Deutsche Telecom and Deutsche Post. Using digital signatures, transactional services such as payment of public fees and bank transactions will be available through bremen.de. As the population accepts the digital signature cards, the full potential of on-line service delivery, as envisioned by the city, will be realized.

Currently, bremen.de offers some interactive services on line. There is an extensive list of forms on line, but the actual form and payment must be paid in person at the office. The on-line service does cut down on the waiting time, which in many government offices can be very long. For the future, Bremen will continue working toward its vision of providing integrated on-line services to citizens.

Services available:

* Register your business URL with Bremen.de

* Apply for building and living permits

* Obtain death, birth and marriage certificates

* Find a hotel

Helsinki, Finland

http://www.arenanet.fi/helsinki/eng/index.htm

Helsinki utilizes advanced communication technology to strengthen the link between government, its citizens, and the outside world. The Virtual Helsinki site links to virtually every information and interactive resource available in Helsinki. City cameras are set up throughout Helsinki so visitors to the website can get instantaneous shots of the city. Traffic cameras allow motorists to check on traffic before they leave work or home. Web phone services are available so that anyone with a microphone and a speaker (along with a web phone program) can call in to the general advice bureau for Helsinki from his or her PC. Downloads and plug-ins are provided at the *Service Center* for the more advanced services.

Services are geared toward Helsinki citizens. There is a searchable listing of events so citizens can find out about a specific event with little information. Public services are categorized and listed on the site under the Public Services heading, which contains information regarding local government services and some interactive services. There are plans to provide more transactional services between agencies and the citizens. Virtual Helsinki is a part of the "Infocities" program, which is an EU-financed program to utilize information technology to connect governments with citizens.

List of interactive services:

* Web phone service connecting to the city government

* City cameras to view real-time shots of the city

* Information and correspondence with government organizations and officials

* Searchable listing of local events
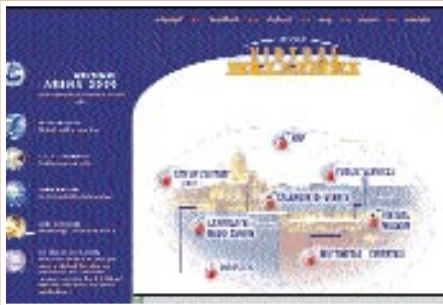
Helsinki creates a virtual community.

e Netherlands restructures
rvices and organizations around
citizens.

Netherlands

http://www.ol2000.nl

In response to citizen demands and the need for increased efficiency in government, the Netherlands has approached ISD with a program they call the Public Counter (in Dutch, *Overheidsloket*). The Netherlands has moved the focus of service delivery away from government processes and organization and focused it on the citizen. The goal of the program is to integrate services according to demand patterns of citizens. Citizens want an outcome, not a process. Currently, citizens must navigate through the many steps of the process themselves to reach an outcome. The Public Counter groups together related services so that citizens need only go to one counter (whether it is electronic, a call center, or a physical counter) for the outcome they need from government. This one-face to the customer bypasses the procedural madness that often overwhelms citizens when looking for government services. The Netherlands refers to it as matching "patterns of demand" with "supply clusters." Of course, to accomplish this level of integrated service, ministries within government must cooperate and soften organizational barriers.

The Netherlands has completed the pilot stage of the Public Counter program, closely monitoring the progress of pilot programs involving the elderly, housing, and real estate in 15 municipalities. Plans are now to implement three public counters: construction and housing, health and welfare, and business.

tegrated services improve
vernment in the province of
ntario.

Ontario, Canada

http://www.mto.gov.on.ca/english/service/index.html

ServiceOntario is an ambitious initiative to integrate and improve service delivery to the citizen. Guided by the goals of better customer service and private sector benchmarking, Ontario hopes to implement a fully integrated and citizen-driven mechanism for government services. The province feels that routine transactions, such as parking fine payment and license renewal, are ideal for electronic service delivery. Rather than just throwing a variety of unconnected services onto one site, Ontario is examining the best way to integrate all services and provide high-level service through a variety of channels accessible to the public.

The service delivery channels for ServiceOntario are mail, kiosk, Internet, person-to-person, and telephone services. This is one of the more in-depth and complex ISD projects around. ServiceOntario is a partnership between four Ontario government ministries—Natural Resources, Consumer and Commercial Relations, Health, and the Management Board Secretariat and IBM Canada. ServiceOntario strives to coordinate both service delivery and the organization of services around citizens' needs, and this partnership is helping to integrate both the services and the service providers.

As of now, the primary delivery channel for transactional services are the automated self-service kiosks. These kiosks function much like sophisticated automated bank machines and are a part of the largest self-service kiosk network of its kind in North America. With a major credit card, citizens can go to any of the 60 kiosk locations open seven days a week to obtain government services.

Among the services available on the kiosks are:

* Pay parking fines for the cities of Ottawa and Toronto

* Pay Ontario Provincial Court fines

* Renew vehicle registration

* Renew license plate sticker

* Order driver and vehicle abstracts listing violations over the past three years

* Change address

* Order a personalized license plate

Portugal

http://www.infocid.pt

Infocid is one of the pioneers of horizontal presentation of services, making services available through many means (Internet, and especially kiosks). Its services are mostly informational in nature and are not yet transactional.

The Portuguese have approached integrated service delivery from the bottom up. The site was developed and is maintained by all government agencies. Infocid has more than 50 partners spanning all government departments. The usual stumbling blocks of bureaucratic territorialism and inter-departmental rivalry made the horizontal integration of Infocid especially difficult. Rather than focusing on transactional services, Inoficd developers focus on intergovernmental management, learning how to work across organizational boundaries.

Instead of being driven by the technology, Infocid strives to be accessible to all, through the Internet and through kiosks. Kiosks are spread throughout the country and tailored to the specific local needs of citizens. The ultimate goal of Infocid is to provide one window to citizens, where citizens can reach services and information at one place. In the near future, Infocid envisions multi-service kiosks, which would be accessible to all citizens and offer transactional services like bill payments. Though that goal has yet to be reached, Infocid stands as an excellent example of integrated service delivery.

Infocid lists as their interactive services as:

* A general directory of public institutions

* Election results

* Case simulation including tax and subsidies calculation

* Rural tourism.

nfocid's interface with the citizen ncourages integration across ureaucracies.

ngapore's one-stop citizen
rvice centre provides
mprehensive on-line services to
3 million residents.

Singapore

http://www.ecitizen.gov.sg/

Singapore's e-Citizen Centre site is perhaps the most developed example of integrated service delivery in the world. The e-Citizen page takes Singaporeans through *Life Journey*. As citizens travel down the road of life, they can stop at the buildings that line the road. The buildings represent Education, Family, Housing, Defense, Employment, Law and Order, Health, Transportation, and Business. Rather than organizing services by departments and agencies, services are organized by life events.

At the beginning of the road, citizens can find information about registering a child's birth and immunization, along with an interactive on-line form to order a birth or death certificate from the Registry of Births and Deaths. Also in the *Family Center*, Singaporeans can order information and brochures on marriage from the Ministry of Community Development.

At the *Education Center*, primary and secondary school services are available. Students can register for national exams, apply to college and other post-secondary institutions, and apply for housing. Adult education and training courses are offered via an on-line application process. Children who are overseas and need to be registered for school can use the on-line form to apply and select their choice of schools.

Information on required national service is also available on life's journey, with an on-line exit application for those wishing to take vacation while liable for national service.

The *Health* stop on life's road provides citizens with health and dental information. Patients can make appointments with Singapore General Hospital or with a specialist at the National University Hospital.

In the *Housing Center*, moving services are offered. People can apply for telephone services, utilities, and TV licenses. They can change addresses and redirect mail. They can also get information on buying, selling and renting subsidized apartments leased by the Housing and Development Board.

The *Transportation Center* handles domestic and international travel. Three agencies administer overseas travel, and all three offer their on-line services at this one site. Singaporeans traveling overseas can notify the government of an overseas trip and apply for an exit permit. Domestically, citizens can order a taxi, charter a bus, and call for airport shuttle service. An on-line written driver's license test and information on car registration are also available at this site.

Employment Town integrates all work-related services, such as applying for jobs, recruitment, retirement, and training. Among the interactive services for employers are foreign domestic worker applications and the posting of job vacancies. Employees can apply civil service jobs, file income tax returns, and request a CPF (social security) statement.

Police report filings, forms to file for bankruptcy, and applications for estate administration by a public trustee are available at the *Law and Order Center.*

Finally, at the *Business Center*, businesses can apply for patents, submit applications for industrial facilities and foreign housing, and apply for a Critical IT Resource Development Grant (a research and training grant for IT professionals and students). Information about setting up businesses, acquiring trademarks, and places to go for consultation and IT advice is available.

Singapore achieves this level of integrated, transactional service because of its small size and highly developed technological infrastructure. The site adjusts its graphics to the connection speed. At the highest speed, the graphics are vivid and easy to follow. There is a logical flow to the design with life's journey depicted as a road lined with buildings and signs that represent different areas of government services.

Interactive services available:

  * Order birth and death certificates
  * Order brochures and publications
  * Apply for work permits for foreign workers
  * Apply to schools
  * Register for national exams
  * Make doctor's appointments
  * Change addresses
  * Redirect mail
  * Apply for phone and utility services
  * Take written driver exams
  * Inform the government of overseas travel
  * Charter a taxi or bus
  * Apply for a civil service job
  * Post job vacancies
  * Obtain bankruptcy forms
  * Apply for patents
  * Apply for government grants

**ommunity network brings
gether South Tyrol, Italy.**

Tyrol, Italy

http://www.provincia.bz.it

A finalist in the Global Bangemann Challenge, the South Tyrolean Citizen Network has evolved from an information resource into an active resource in the South Tyrol community. The site provides many information services with a community focus, rather than a government focus. Government services are available, but so are up-to-the-minute press releases and weather and traffic information. Searchable hotel directories are available for tourists as well.

The site actively brings citizens together, utilizing Internet technology to bridge the gap between government and its citizens, and between citizens and themselves. The site provides an on-line forum and chat rooms where citizens can discuss community issues and suggest topics. The employment market is an excellent local resource for those looking for jobs in South Tyrol. Potential employees and employers can post resumes and job openings and search through postings according to criteria. Employment brochures can be ordered on line and delivered by mail. Interactive services such as the aforementioned, along with the wealth of information services from the government and the community, make South Tyrol's Citizen Network an excellent example of integrated service delivery.

Some of the transactional services available on line:

   * A discussion forum for community issues

   * A catalog of forms

   * A job market allowing employees and employers to register information and order employment related brochures

**ustralia's maxi offers interactive
nd transactional services to
ctorians.**

Victoria, Australia

http://www1.Maxi.com.au/devs/Main.Maxi

The maxi site is a model for electronic and integrated service delivery. Citizens of Victoria, Australia, can conduct government and business services on line through the maxi site. Victoria has a goal for all government services to be on line by 2001—and the maxi site is a big step in that direction. Citizens can find the service the need categorized by organization or by service type.

Cities and municipalities—for example, Melbourne, the Manningheim City Council, and the Moira Shire Council—all offer their services through this one site. Therefore, it is possible to pay parking fines in all three cities over the Internet. Maxi is a completely transactional environment, and it is important to not use the "back" buttons on your browser. Navigation buttons are provided along the right frame if you need to go back or return to the main menu.

Plans for the future include organizing services by life events. When a couple gets married, they would go to maxi to take care of all the administrative and service-related transactions. As of now, there are three service delivery vehicles for maxi.

One is the Internet. Because of security concerns, Safe Passage software is provided through maxi. Safe Passage provides bank-quality encryption and security for transactions over common Internet browsers. Other avenues of service delivery from Victoria are kiosks and an interactive voice response system done by telephone. All maxi service interfaces accept credit cards and debit cards. Receipt can be printed on line or dispensed at the kiosk. Maxi has been recognized with many major awards, and even Microsoft CEO, Bill Gates has commended its use of electronic government.

A list of some of the interactive services are:

   * Book your learners permit or driving test

   * Register your vehicle

   * Make an appointment with the Moira Shire Council

   * Purchase birth, death, and marriage certificates

   * Pay bills (energy and water bill, parking fines, permits for pets)

   * Change your address

   * Request garbage service

Victoria offers services on line.

Victoria, British Columbia, Canada

http://www.city.victoria.bc.ca/

In this example, our second "Victorian" site, interactive and informative services are available to the citizens of Victoria, British Columbia. Over the web, citizens can pay parking fines with a Visa or Master Card. Citizens can also acquire on-line property tax information by entering an address on the website. The city accepts credit card payment on line for property tax certificates. To spread the word about Victoria, visitors to the site can send a Cyber-postcard to a friend. Tourists can check on the availability of accommodations in BC. Also available are press releases, maps, virtual tours, and other relevant information about Victoria.

Victoria highlights its electronic services, so they are easy to find. The site has a government/tourist focus. Victoria is an excellent model for governments who are just beginning to look at providing on-line services.

Some interactive services are:

   * Pay parking fines

   * Interactive database for property tax information

   * On-line credit card payment for property tax certificates

   * Cyber-postcards from Victoria

enna serves its citizens on line.

Vienna, Austria

http://www.wien.at

Vienna, Austria, has consolidated nearly all of its city services into an integrated network of sites on the Internet. The image at the left is from the opening page for Vienna, and the field at the top of the screen contains service areas, such as housing services, construction services, education, social services, family, environment, health and so on. All of the categories contain information and some interactive services. Information is separated by subject area, so citizens can find the appropriate office to reach. Whether a citizen needs contact information, to find the nearest doctor, to sell old sports equipment on line, or find a book at the local library, everything can be reached from wienonline.

Some of the services offered are:

* School directory that contains searchable databases of schools by keyword and by acceptance criteria.

* Interactive geographic information systems to find the nearest pharmacy and doctor

* Used goods market where citizens can post their items and shoppers can search for what they need

* Downloadable forms

* Searchable library database